Amendments to the Specification 12

Please rewrite the paragraph beginning at page 1, line 12 as follows: ya 6/5/07

--The present invention is related to co-pending U.S. patent application entitled "Variable Speed Recording Method and Apparatus for a Magnetic Tape Drive", invented by Beavers et al., and having an internal docket number of 9086/101 and a serial number of 09/176,079, now U.S. Patent 6,307,701, filed concurrently herewith on October 20, 1998, and co-pending U.S. patent application entitled "Fine Granularity Rewrite Method and Apparatus for Data Storage Device", invented by Zaczek, and having an internal docket number of 9086/106 and a serial number of 09/176,015, now U.S. Patent 6,381,706, filed concurrently herewith on October 20, 1998, and co-pending U.S. patent application entitled "Multi-level Error Detection and Correction Technique for Data Storage Recording Device", invented by McAuliffe et al., and having an internal docket number of 9086/102 and a serial number of 09/176,014, now U.S. Patent 6,367,047, filed concurrently herewith on October 20, 1998, all of which are commonly owned and all of which are hereby incorporated by reference.--

Please rewrite the paragraph beginning on page 5, line 6 as follows:

--Each pair of ~~like-azimuth (like type)~~ heads oriented along identical azimuth angles (i.e., being both of type "A" or both of type "B") is separated vertically on the surface of the drum so that each read head passes over a given track with a longitudinal offset relative to one another at nominal tape speed (i.e., at the tape speed used for writing). The width of each head (also referred to herein as head width or gap width) is also selected so as to create an overlap between the two scans of the track by the corresponding two ~~like-azimuth~~ identical type read heads.--

Please rewrite the paragraph beginning on page 5, line 12 as follows:

--The combination of preferred dimensions for the head width and the vertical offset of the ~~like-azimuth~~ heads having identical azimuth angles on the

Please rewrite the paragraph beginning on page 4, line 1 as follows:

As noted, tracking circuits add significant complexity and associated cost to helical scan tape devices. Some helical scan devices are non-tracking in that they use no such expensive tracking circuits to assure alignment of the heads with the track. Rather, presently known non-tracking tape devices significantly slow the tape speed relative to the drum to permit multiple passes of the read head over the same track. Each pass is at a slightly different longitudinal position on the tape due to the tape movement but because of the slower speed overlaps a portion of the track read by the previous pass. This overlap of sequential passes is often referred to as overscan. To achieve sufficient overscan to assure proper reading of the track by at least one of the read heads, such non-tracking devices reduce the speed of the tape to half of the nominal speed (i.e., half the speed at which the tracks were recorded). This permits a first pass read to overlap a second pass read thereby helping to assure that one of the passes will substantially cover the track width. However, slowing the tape for read operations negatively impacts read operation performance of the tape device.

Please rewrite the paragraph beginning on page 5, line 6 as follows:

Each pair of like-azimuth (like type) heads is separated vertically on the surface of the drum so that each read head passes over a given track with a longitudinal offset relative to one another at nominal tape speed (i.e., at the tape speed used for writing). The width of each head (also referred to herein as head width or gap width) is also selected so as to create an overlap between the two scans of the track by the corresponding two like-azimuth read heads.

Please rewrite the paragraph beginning on page 6, line ~~32~~ 28 and continuing through page 7, line 10 as follows: ya 6/5/07

In a second aspect of the invention, a helical scan drum is provided for use in non-tracking tape storage subsystem. The drum has a first and second

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Please rewrite the paragraph beginning on page 2, line 11 as follows: ya 6/5/07

As physical limits were encountered in design of such linear tape devices, helical scan tape subsystems evolved to further increase tape medium storage densities. This is a recording format in which a relatively slow moving tape is helically wrapped around a rapidly rotating drum with an embedded record head and read head. The tape is positioned at a slight angle to the equatorial plane of the drum. This results in a recording format in which recorded tracks run diagonally across the tape from one edge to the other. The record head rotates past the tape spanning a diagonal from one edge to the other. As the drum rotates, the record head records another diagonal track with more data. Recorded tracks are parallel to each other but are each at an angle to the edge of the tape. This geometry of discrete sized tracks on the magnetic tape medium allows still higher densities of data to be stored on the tape as compared to older linear (longitudinal) tape subsystems.